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☐ 2251-63  
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MEMORANDUM FOR: Deputy Director (Research)

SUBJECT: Inclination Angles Available for the  
LANYARD Program

1. Because of revised THOR ascent data all "L" orbits are being reworked with the exception of L-1 which is still valid.

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2. ☐ has requested we reexamine our needs and desires for "L" orbits. Additional information is available now which was not considered when original selections were made. Specifically:

a. The 95 degree retrograde circular orbit is not available because of the weight problem. However, they will continue to work on this in hopes the problem can be solved. Work has begun on an 82 degree orbit for Mission 9054 (22 April 1963). This will enable us to cover all northern targets of interest.

b. Because of the system limitation on camera cycling rates for operations above 130 NM altitude, it is recommended that the three cases with low perigee altitudes that were to be developed be eliminated. No ascending coverage would be available for these orbits because of the high altitudes.

3. Recommendation for "L" inclination angle development is as follows:

a. 75 Degrees:

Perigee location approximately 30 degrees north.  
(This will be used on L-1).

b. 75 Degrees:

Rotate perigee to around 68 degrees north descending which will put perigee at 75 degrees north on the fourth day. This will allow both ascending and descending coverage for summer operation. Work has already started on this.

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Handle by ☐  
Control System

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c. 82 Degrees:

With perigee located to best provide both ascending and descending coverage.

d. 70 and 65 Degree orbits in that order:

Perigee to be located as in 3. c. above.

4. In summation, the above would give us the same coverage now available for our CORONA/MURAL operations with both ascending and descending coverage. It would eliminate the development of those cases which, in my opinion, are unnecessary and work would continue on the 95 degree retrograde orbit in hopes future developments make it available.

5. I have approved the use of the 75 degree inclination angle, as stated in 3. b., for Mission 8002 (L-2).

JACK C. LEDFORD  
Colonel USAF  
Assistant Director  
(Special Activities)

25X1A OSA/OJ/COR/[ ] kb (21 Feb 63)

Distribution:

- #1 - DD/R
- #2 - AD/OSA
- #3 - OSA/C/OD
- #4 - OSA/OD/COR
- #5 - OSA/RB

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21 February 1963

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MEMORANDUM FOR THE RECORD

SUBJECT: Visit to   
Pittsburgh, Pennsylvania, 20 February 1963

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Engineering Analysis Division, OSA

Distribution:

- Cy 1 - EAD/OSA
- Cy 2 - DD/R
- Cy 3 - AD/SA
- Cy 4 - DD/OSA
- Cy 5 - RB/OSA (dummy)
- Cy 6 - EAD chrono